

Date: Monday, 6/5/2006 7:41:05 AM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services  
 Job Number : 27342  
 Estimate Number : 11471  
 P.O. Number : NIA  
 This Issue : 6/5/2006 S.O. No. : NIA  
 Prsht Rev. : NC  
 First Issue : NIA Type : MACHINED PARTS  
 Previous Run : 26723  
 Drawing Name : DOUBLER  
 Part Number : D3140101  
 Drawing Number : D3140 REV D1  
 Project Number : NIA  
 Drawing Revision : D1  
 Material : NIA  
 Due Date : 6/30/2006 Qty: 6 Um: Each  
 Written By : *SAKJ* COMMENT BELOW  
 Checked & Approved By : *06.06.05*  
 Comment : Est. A 02.04.30 New Issue NG  
 Est. B 06.04.18 New dwg/rev. ecn781 EC

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M2024T3S032 2024-T3 .032 sheet



Comment: Qty.: 0.0466 sf(s)/Unit Total : 0.2797 sf(s)  
 2024-T3 .032 sheet  
 Matl: 2024-T3 ( QQ-A-250/4 ) .032" thick  
 ( M2024T3S.032 ) -2.20"x2.80" ref  
 Note: Part not square.

Batch

M100284

06.06.07 (6)

2.0 SHEAR Water jet

SHEAR



Prog Rev. D1  
 Dwg Rev. D1



Comment: SHEAR  
 Cut as per dwg D3140  
 Deburr. No sharp edges

06.06.07 (6)

3.0 QCC2 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06.06.08 (6)

4.0 HAND FINISHING1 HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1  
 Chemical Conversion Coat as per QST 005 4.1

06.06.09 (6)

5.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

06.10.09 (6)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA:   P   Date: 06/06/12

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date: Monday, 6/5/2006 7:41:06 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER

Job Number: 27342

Part Number: D3140101

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: CA-10

*C 206109109 (6)*

7.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

*SP 06/06/10 (6)*

Job Completion



*OK 06-06-12*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector



NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_


NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

**DART**

DESIGN DS	DRAWN BY RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3140	REV. D SHEET 1 OF 7
DATE 05.11.23		TITLE DOOR	SCALE NTS
A	02.04.18	NEW ISSUE	
B	03.01.23	REMOVE -65/-81/-83; ADD -301/-303	
C	04.11.08	CHANGE DELASTEK SPEC. TEC-77; ADD PART MARKING; ADD NOTES 11, 12, 13; CHANGE ANGLE -95/-97/-98 TO 106°	
D	05.11.23	ADD -103/-104/-105/-106; REMOVE -67	
DI	<del>06.03.31</del>	1.75 WAS 1.88; 4.75 WAS 4.13	

RELEASED

05.12.01 

QTY -05	QTY -06	QTY -07	QTY -08	QTY -09	QTY -10	PART NUMBER	DESCRIPTION
X						D3140-05	DOOR
	X					D3140-06	DOOR
		X				D3140-07	DOOR
			X			D3140-08	DOOR
		1		X		D3140-09	DOUBLER ASSEMBLY
			1		X	D3140-10	DOUBLER ASSEMBLY
3	3					D3140-57	PAD
1	1					D3140-59	PAD
2	2					D3140-61	PAD
2	2					D3140-63	PAD
		1	1			D3140-69	PAD
		1	1			D3140-71	PAD
		1	1			D3140-73	PAD
		1	1			D3140-75	PAD
		1	1			D3140-77	PAD
		1	1			D3140-79	PAD
				1	1	D3140-85	ANGLE
1	1					D3140-87	DOUBLER
				1	1	D3140-89	DOUBLER
		1				D3140-91	DOUBLER
			1			D3140-92	DOUBLER
3	3					D3140-95	DOUBLER
1						D3140-97	DOUBLER
	1					D3140-98	DOUBLER
		1	1			D3140-99	DOUBLER
		2	2			D3140-101	DOUBLER
		1				D3140-103	DOUBLER
			1			D3140-104	DOUBLER
		1				D3140-105	DOUBLER
			1			D3140-106	DOUBLER
1	1					D3140-241	DOUBLER
1		1				D3140-301	DOUBLER
	1		1			D3140-303	DOUBLER
				5	5	MS20426AD3-4	RIVET

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 27342

Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

**DART**

DESIGN DS	DRAWN BY RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3140	REV. D SHEET 2 OF 7
DATE 05.11.23		TITLE DOOR	SCALE NTS

1

COMPOSITE LAYUP & BONDING I.A.W. DELASTEK PROCESS SPEC. TEC-77  
MATERIAL STORAGE & HANDLING TO BE I.A.W. DART QSI 006  
MAIN LAYUP USES FIBERCOTE E-761/7781 EPOXY FIBERGLASS.  
FILL WITH EPOCAST 87269 OR MAGNOBOND 77 A & B AND MA560 FOAM/ NB-51/30 FOAM

2

FINISH: DUPONT HIGHBUILD GREY PRIMER 1144-S

3

MAKE PARTS IN ACCORDANCE WITH THE FOLLOWING TOOLS/MOLDS:

PART	TOOL
D3140-05	B30-23000-01T
D3140-06	B30-23000-02T
D3140-07	B30-23000-03T
D3140-08	B30-23000-04T
D3140-57	B30-23000-57T
D3140-61	B30-23000-61T
D3140-63	B30-23000-63T
D3140-69	B30-23000-69T
D3140-71	B30-23000-71T
D3140-73	B30-23000-73T
D3140-75	B30-23000-75T
D3140-77	B30-23000-77T
D3140-79	B30-23000-79T
D3140-89	D3140-89T1
D3140-301	D3140-301T1
D3140-303	D3140-303T1

**RELEASED**  
05.12.01

4

MATERIAL: 2024-T3 (QQ-A-250/4) 0.032 THICK (M2024T3S.032)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

5

MATERIAL: 2024-T3 (QQ-A-250/4) 0.020 THICK (M2024T3S.020)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

6

MATERIAL: 5052-H32/H34 (QQ-A-250/8) 0.040 THICK (M5052H32S.040)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

7

MATERIAL: POLIMEX TR75 1" THICK 4.5 LB KLEGECELL

8

ALL DIMENSIONS IN INCHES

9

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

10

MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (M6061-T6S.063)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

11

DOUBLER TO SIT ON TOP OF FOAM AT THIS LOCATION

12

DOUBLER TO BE RECESSED FLUSH INTO FOAM AT THIS LOCATION

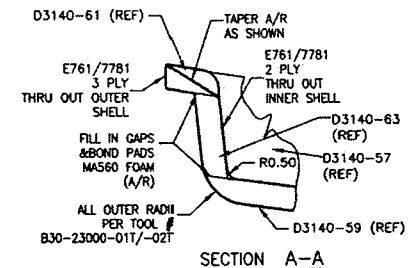
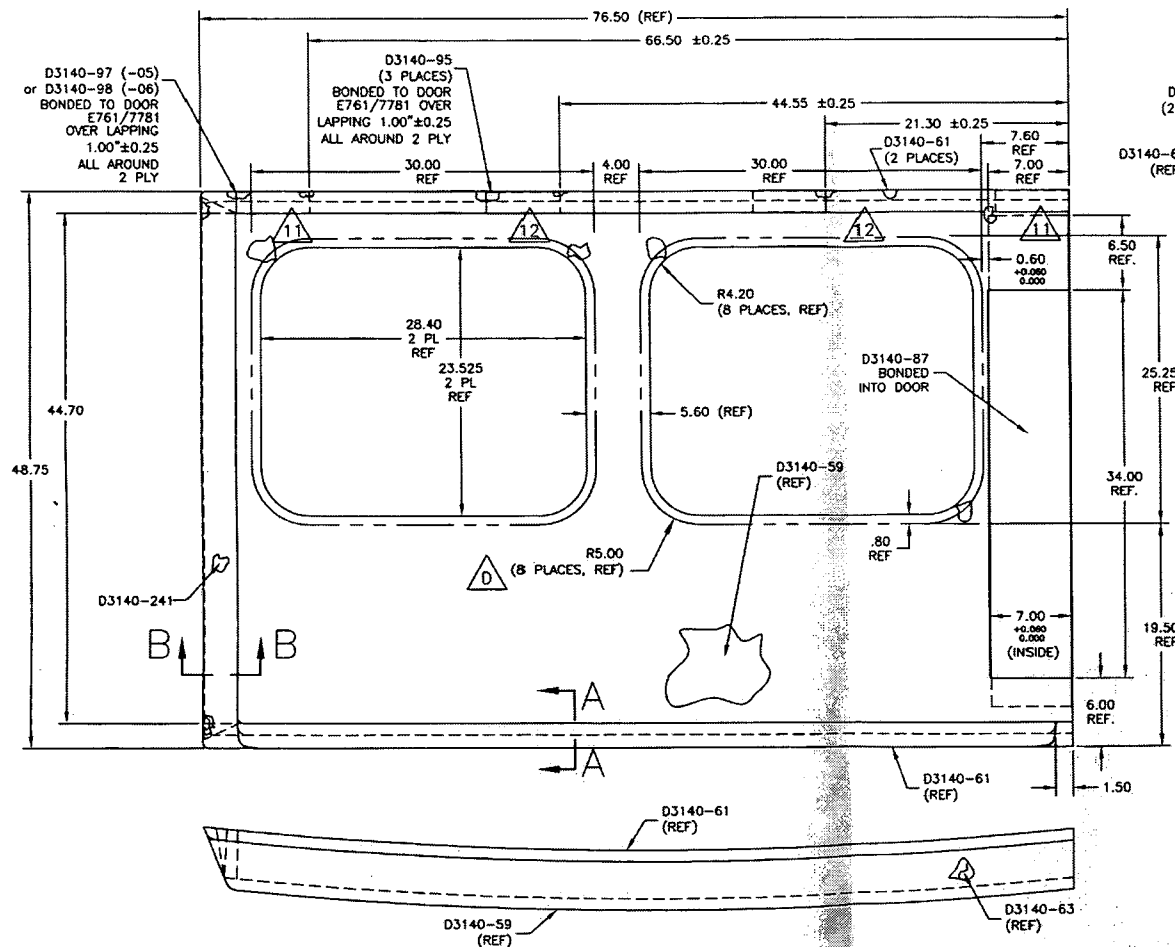
13

RUBBER STAMP WITH DART P/N D3140-05/-06/-07/-08 USING MIL-STD-130

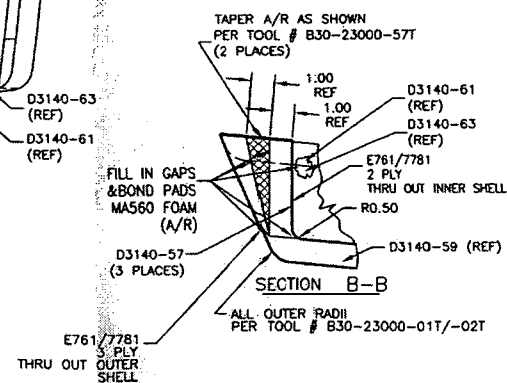
SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 27342

Copyright © 2002 by DART AEROSPACE LTD

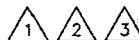
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



RELEASED



D3140-05 DOOR (SHOWN, REPLACES PREMIER P/N B30-23000-05)  
D3140-06 DOOR (OPPOSITE, REPLACES PREMIER P/N B30-23000-06)  
(WINDOWS & CUTOUTS TO BE LOCATED PER B30-23000-01T/-02T TOOL)



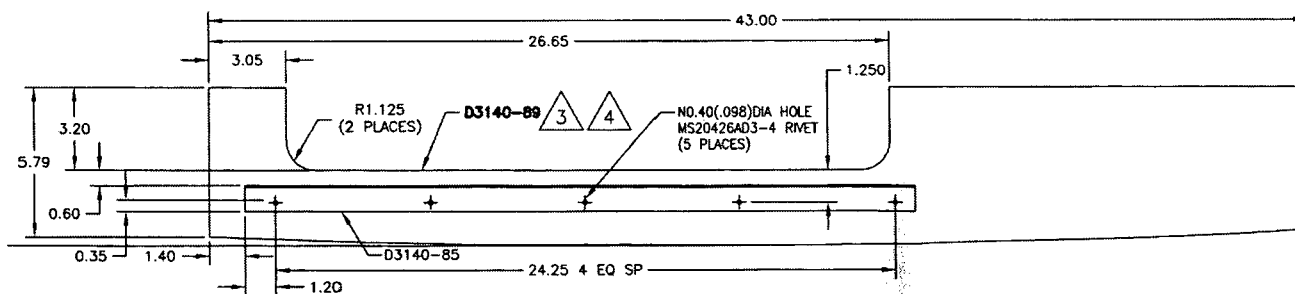
COPYRIGHT © 2002 BY DART AEROSPACE LTD.  
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DESIGN	DS	DRAWN BY	RF	<b>DART</b>	DART AEROSPACE LTD. MARKHAM, ONTARIO, CANADA
CHECKED	#	APPROVED	#	DRAWING NO.	D3140
DATE	05.11.23	TITLE	DOOR	REV. D	SHEET 3 OF 7
				SCALE	NTS

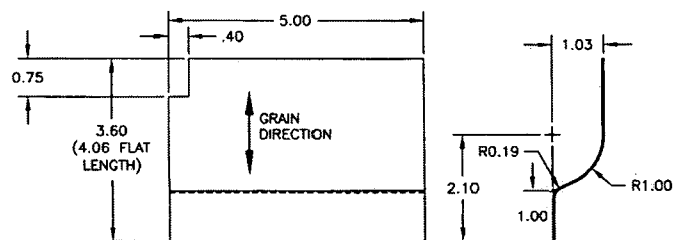
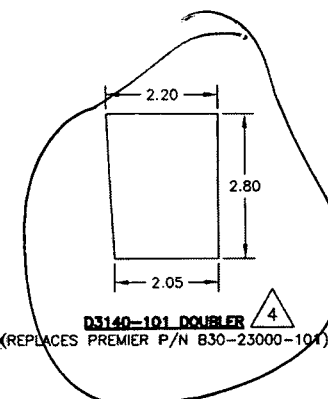
NO. 27842  
WORK ORDER  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
UNCONTROLLED COPY  
ENGINEERING  
RETURN TO  
SHOP COPY





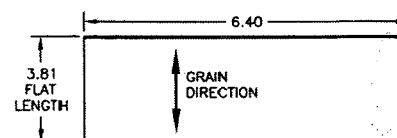


**D3140-10 DOUBLER ASSEMBLY (SHOWN, REPLACES PREMIER P/N B30-23000-10)**  
**D3140-09 DOUBLER ASSEMBLY (OPPOSITE, REPLACES PREMIER P/N B30-23000-09)**

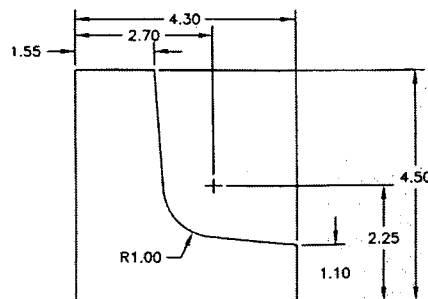


**D3140-91F FLAT PATTERN**  
 (USE TO MAKE D3140-91/-92 DOUBLERS)

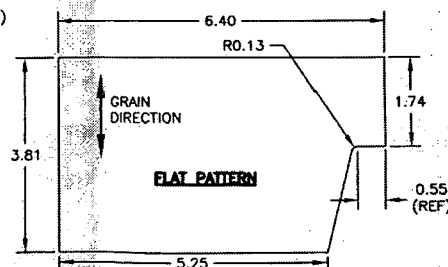
**D3140-91 DOUBLER**  
 (SHOWN, REPLACES PREMIER P/N B30-23000-91)  
**D3140-92 DOUBLER**  
 (OPPOSITE, REPLACES PREMIER P/N B30-23000-92)



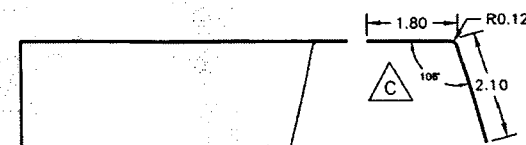
**D3140-95 DOUBLER**  
 (REPLACES PREMIER P/N B30-23000-95)



**D3140-98 DOUBLER**  
 (REPLACES PREMIER P/N B30-23000-98)



**D3140-97F FLAT PATTERN**  
 (USE TO MAKE D3140-97/-98 DOUBLERS)



**D3140-97 DOUBLER**  
 (SHOWN, REPLACES PREMIER P/N B30-23000-97)  
**D3140-98 DOUBLER**  
 (OPPOSITE, REPLACES PREMIER P/N B30-23000-98)

RELEASED

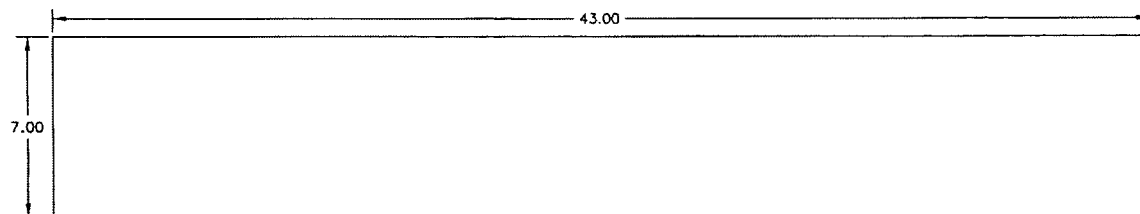
SEND DETAIL

COPYRIGHT © 2002 BY DART AEROSPACE LTD.

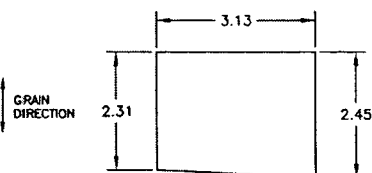
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DESIGN DS	DRAWN BY RF	<b>DART</b>	DART AEROSPACE LTD. HAMMERSBURY, OXFORD, CANADA
CHECKED	APPROVED	DRAWING NO. D3140	REV. 0 SHEET 5 OF 7
DATE 05.11.23	TITLE 000R	SCALE NTS	

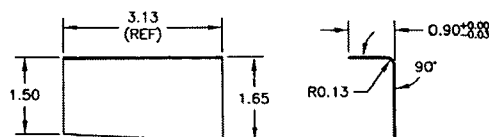
NO. 27342  
 WORK ORDER  
 WITHOUT NOTICE  
 UNCONTROLLED COPY  
 SUBJECT TO AMENDMENT  
 ENGINEERING  
 RETURN TO  
 SHOP COPY



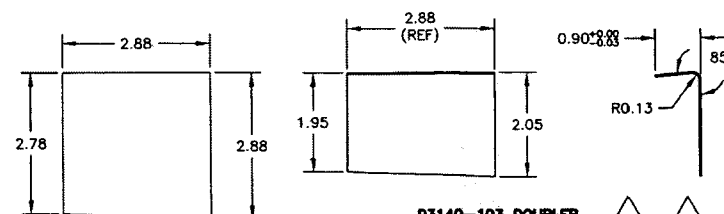
**D3140-87 DOUBLER**  $\triangle 4$   
(REPLACES PREMIER P/N B30-23000-87)



**D3140-105F FLAT PATTERN**  
(USED TO MAKE D3140-105/-106 BRACKETS)

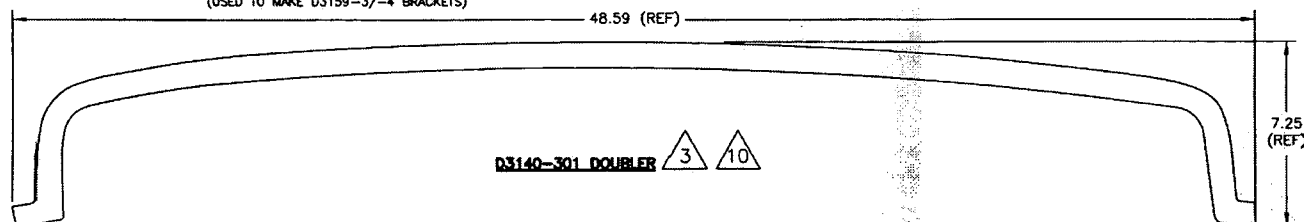


**D3140-105 DOUBLER**  $\triangle 4$   $\triangle D$   
**D3140-106 OPPOSITE**

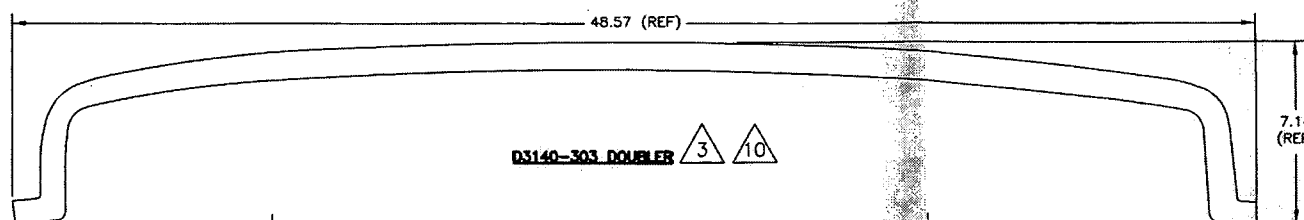


**D3140-103 DOUBLER**  $\triangle 4$   $\triangle D$   
**D3140-104 OPPOSITE**  
**D3140-103F FLAT PATTERN**  
(USED TO MAKE D3140-103/-104 BRACKETS)

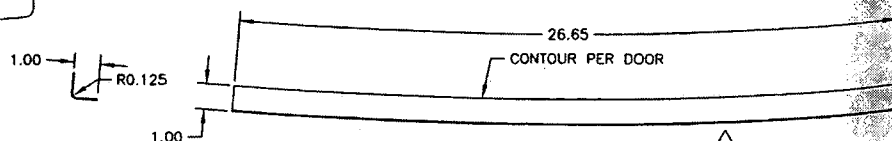
**D3159-3F FLAT PATTERN**  
(USED TO MAKE D3159-3/-4 BRACKETS)



**D3140-301 DOUBLER**  $\triangle 3$   $\triangle 10$



**D3140-303 DOUBLER**  $\triangle 3$   $\triangle 10$



**D3140-85 ANGLE**  $\triangle 6$   
FLAT PATTERN: 26.65" x 1.90"  
(REPLACES PREMIER P/N B30-23000-85)

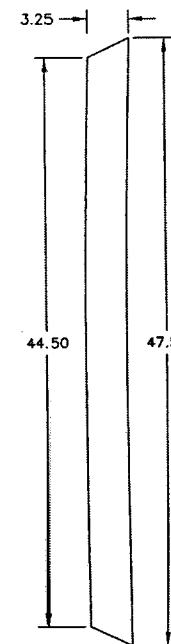
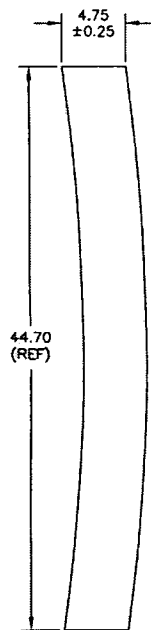
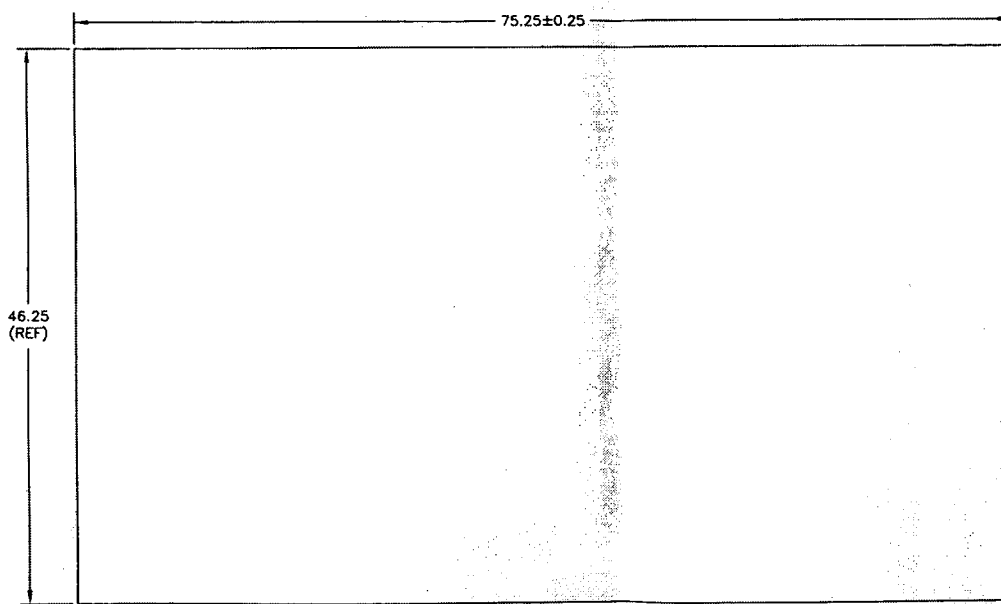
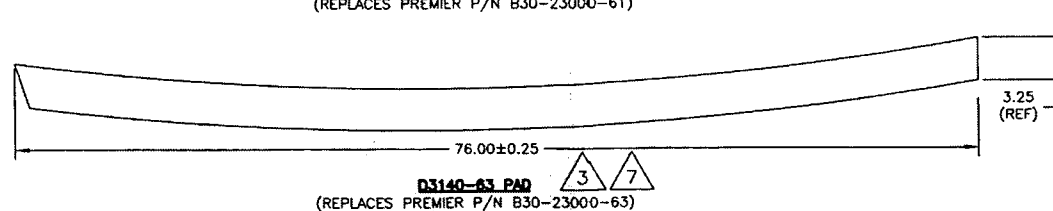
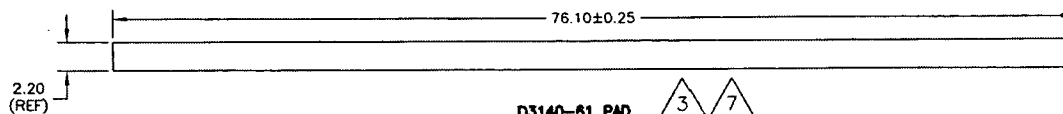
RELEASED  
05.11.01

COPYRIGHT © 2002 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DESIGN DS	DRAWN BY RF	<b>DART</b>	DART AEROSPACE LTD. WINDRESSBURY, OXFORD, CANADA
CHECKED 	APPROVED 	DRAWING NO. D3140	REV. 0 SHEET 6 OF 7
DATE 05.11.23	TITLE DOOR	SCALE NTS	

NO. 27342  
WORK ORDER  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
ENGINEERING  
RETURN TO  
SHOP COPY



RELEASED

R1.00  
(2 PLACES, REF)

NO. 21342  
WORK ORDER  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
UNCONTROLLED COPY  
ENGINEERING  
RETURN TO  
SHOP COPY

COPYRIGHT © 2002 BY DART AEROSPACE LTD.		DESIGN DS	DRAWN BY RF	<b>DART</b> DART AEROSPACE LTD. WARRIMUR, ONTARIO, CANADA	REV. 0
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		CHECKED #	APPROVED #	DRAWING NO. D3140	SHEET 7 OF 7
		DATE 05.11.23	TITLE DOOR	SCALE NTS	



11/11/69

Doc 1

11/11/69

11/11/69

